

DNAM-1/CD226 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	CD226 molecule;DNAM1;TLISA1;Pta1;BC051526;DNAM-1
Protein Construction:	A DNA sequence encoding the mouse DNAM1 (NP_848802.2) extracellular domain (Met 1-Pro 254) was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Glu 19
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q5DW69
Molecular Weight:	28.2 kDa (predicted); 43 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Measured by its binding ability in a functional ELISA. Immobilized mouse DNAM1 at 2 µg/ml (100 µl/well) can bind mouse CD155 with a linear range of 6.4-160 ng/ml.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

The cluster of differentiation (CD) system is commonly used as cell markers in Immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other

functions such as cell adhesion. CD226, also known as PTA1 or DNAM-1, is a member of the immunoglobulin superfamily containing 2 Ig-like domains of the V-set. High rate of CD226 (Cluster of Differentiation 226) is found on the surface of natural killer cells, platelets, monocytes and a subset of T cells. CD226 have binding sites with CD112 and CD155 and mediate cellular adhesion to other cells containing its ligands. Cancer Immunotherapy Co-stimulatory Immune Checkpoint Targets Immune Checkpoint Immune Checkpoint Detection: ELISA Antibodies Immune Checkpoint Detection: FCM Antibodies Immune Checkpoint Proteins Immune Checkpoint Targets Immunotherapy Targeted Therapy

Reference

Zola H, et al. (2007) CD molecules 2006-human cell differentiation molecules. *J Immunol Methods*. 318 (1-2): 1-5.
Ho IC, et al. (2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. *Nat Rev Immunol*. 9 (2): 125-35.
Matesanz-Isabel J, et al. (2011) New B-cell CD molecules. *Immunology Letters*. 134 (2): 104-12.

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